

In the claims:

1. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein comprising a fusion of, toward the N-terminus, at least an MHC Class II binding domain of an MHC Class II  $\alpha$  chain and, toward the C-terminus, a dimerization domain.
2. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 1 wherein said MHC Class II binding domain comprises an extracellular domain of an MHC Class II  $\alpha$  chain.
3. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 2 wherein said extracellular domain comprises residues 5-180 of an MHC Class II  $\alpha$  chain.
4. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 2 wherein said extracellular domain comprises residues 5-200 of an MHC Class II  $\alpha$  chain.
5. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 2 wherein said extracellular domain comprises residues 5-190 of an MHC Class II  $\alpha$  chain.
6. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 1 wherein said MHC Class II  $\alpha$  chain is selected from the group consisting of HLA-DR1, HLA-DR2, HLA-DR4, HLA-DQ1, HLA-DQ2 and HLA-DQ8  $\alpha$  chains.
7. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 1 wherein said MHC Class II  $\alpha$  chain is encoded by an HLA allele selected from the group consisting of DRA\*0101, DRA\*0102, DQA1\*0301 and DQA1\*0501 alleles.
8. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein comprising a fusion of, toward the N-terminus, at least an MHC Class II binding domain of an MHC Class II  $\beta$  chain and, toward the C-terminus, a dimerization domain.

9. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 8 wherein said MHC Class II binding domain comprises an extracellular domain of an MHC Class II  $\beta$  chain.
10. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 9 wherein said extracellular domain comprises residues 5-185 of an MHC Class II  $\beta$  chain.
11. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 9 wherein said extracellular domain comprises residues 5-205 of an MHC Class II  $\beta$  chain.
12. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 9 wherein said extracellular domain comprises residues 5-195 of an MHC Class II  $\beta$  chain.
13. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 8 wherein said MHC Class II  $\beta$  chain is selected from the group consisting of HLA-DR1, HLA-DR2, HLA-DR4, HLA-DQ1, HLA-DQ2 and HLA-DQ8  $\beta$  chains.
14. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 8 wherein said MHC Class II  $\beta$  chain is encoded by an allele selected from the group consisting of DRB1\*01, DRB1\*15, DRB1\*16, DRB5\*01, DRB1\*03, and DRB1\*02 alleles.
15. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in any one of claims 1-14 wherein said dimerization domain is a coiled-coil domain.
16. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 15 wherein said dimerization domain is a leucine zipper domain.
17. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 16 wherein said leucine zipper domain comprises at least four leucine heptads.

18. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 16 wherein said leucine zipper domain is selected from the group consisting of a Fos and a Jun leucine zipper domain.

19. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in any one of claims 1-14 wherein said dimerization domain is an immunoglobulin Fab constant domain.

20. (Withdrawn) A Class II Major Histocompatibility Complex fusion protein as in claim 19 wherein said immunoglobulin Fab constant domain is an immunoglobulin heavy chain C<sub>H</sub>1 constant region.

21-102. (Cancelled)

103. (Currently Amended) A Class II Major Histocompatibility Complex fusion protein comprising

a heterodimer of a first polypeptide chain and a second polypeptide chain;

wherein the first polypeptide chain comprises a fusion of, toward the N-terminus, an extracellular domain of a human MHC Class II  $\alpha$  chain and, toward the C-terminus, a first coiled-coil dimerization domain; and

wherein the second polypeptide chain comprises a fusion of, toward the N-terminus, an extracellular domain of a human MHC Class II  $\beta$  chain and, toward the C-terminus, a second coiled-coil dimerization domain; and

wherein the first dimerization domain and said second dimerization domain associate in solution at physiological conditions to form a heterodimer capable of selectively binding a[[n]] MHC binding peptide.

104-113. (Cancelled)

114. **(Currently amended)** The MHC Class II fusion protein of claim 103 wherein the extracellular domain of the MHC Class II  $\alpha$  chain comprises amino acid residues 5-180 of a[[n]] MHC Class II  $\alpha$  chain.

115. **(Currently amended)** The MHC Class II fusion protein of claim 103 wherein the extracellular domain of the MHC Class II  $\alpha$  chain comprises amino acid residues 5-200 of a[[n]] MHC Class II  $\alpha$  chain.

116. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II  $\alpha$  chain is an HLA-DR2 allele.

117. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II  $\alpha$  chain is encoded by an HLA allele selected from the group consisting of DRA\*0101 and DRA\*0102.

118. **(Currently amended)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II  $\beta$  chain extracellular domain comprises amino acid residues 5-185 of an MHC Class II  $\beta$  chain.

119. **(Currently amended)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II  $\beta$  chain extracellular domain comprises amino acid residues 5-205 of an MHC Class II  $\beta$  chain.

120. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II  $\beta$  chain is an HLA-DR2 allele.

121. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein the MHC Class II  $\beta$  chain is encoded by an allele selected from the group consisting of DRB1\*01, DRB1\*15, DRB1\*16, and DRB5\*01.

122. **(Previously presented)** The MHC Class II fusion protein of claim 103 wherein at least one of the dimerization domains comprises a leucine zipper domain.

123. **(Previously presented)** The MHC Class II fusion protein of claim 122 wherein the leucine zipper domain comprises at least four leucine heptads.
124. **(Previously presented)** The MHC Class II fusion protein of claim 123 wherein the leucine zipper domain is selected from the group consisting of a Fos and a Jun leucine zipper domain.
125. **(Previously presented)** The MHC Class II fusion protein of claim 103 further comprising a first immunoglobulin Fc domain positioned at the C-terminus of at least one of the first and or second polypeptide chains.
126. **(Previously presented)** The MHC Class II fusion protein of claim 125 wherein the Fc domain is an IgG Fc domain.
127. **(Previously presented)** The MHC Class II fusion protein of claim 125 wherein the Fc domain includes the hinge region.
128. **(Previously presented)** The MHC Class II fusion protein of claim 103 further comprising a first flexible molecular linker covalently linking the MHC Class II  $\alpha$  chain to the first dimerization domain and a second flexible molecular linker covalently linking the MHC Class II  $\beta$  chain to the second dimerization domain.
129. **(Previously presented)** The MHC Class II fusion protein of claim 103 further comprising an MHC binding peptide bound to the MHC Class II fusion protein.
130. **(Previously presented)** The MHC Class II fusion protein of claim 129 wherein the MHC binding peptide is covalently bound to the MHC Class II fusion protein.
131. **(Currently amended)** A MHC Class II-peptide complex comprising  
at least one Class II MHC fusion protein comprising a heterodimer of a first polypeptide chain and a second polypeptide chain;

wherein the first polypeptide chain comprises a fusion of, toward the N-terminus, an extracellular domain of a human MHC Class II  $\alpha$  chain, and toward the C-terminus, a flexible molecular linker, and a first coiled-coil dimerization domain;

wherein the second polypeptide chain comprises a fusion of, toward the N-terminus, an extracellular domain of a human MHC Class II  $\beta$  chain, and toward the C-terminus, a flexible molecular linker, and a second coiled-coil dimerization domain;

wherein a[[n]] Fc domain is covalently attached to the C-terminus of at least one of the first or second dimerization domains;

wherein the first dimerization domain and said second dimerization domain associate in solution at physiological conditions; and

a[[n]] MHC binding peptide covalently bound to the at least one MHC Class II fusion protein.

132. **(Previously presented)** The MHC Class II-peptide Complex of claim 131 wherein the MHC binding peptide is covalently attached to the N-terminus of the first polypeptide chain and the Fc domain is covalently attached to the C-terminus of the second polypeptide chain.

133. **(Previously presented)** The MHC Class II-peptide Complex of claim 131 wherein the MHC binding peptide is covalently attached to the N-terminus of the second polypeptide chain and the Fc domain is covalently attached to the C-terminus of the first polypeptide chain.

134. **(New)** The MHC Class II fusion protein of claim 131 wherein the extracellular domain of the MHC Class II  $\alpha$  chain comprises amino acid residues 5-180 of a MHC Class II  $\alpha$  chain.

135. **(New)** The MHC Class II fusion protein of claim 131 wherein the extracellular domain of the MHC Class II  $\alpha$  chain comprises amino acid residues 5-200 of a MHC Class II  $\alpha$  chain.

136. **(New)** The MHC Class II fusion protein of claim 131 wherein the MHC Class II  $\alpha$  chain is an HLA-DR2 allele.

137. (New) The MHC Class II fusion protein of claim 131 wherein the MHC Class II  $\alpha$  chain is encoded by an HLA allele selected from the group consisting of DRA\*0101 and DRA\*0102.

138. (New) The MHC Class II fusion protein of claim 131 wherein the MHC Class II  $\beta$  chain extracellular domain comprises amino acid residues 5-185 of a MHC Class II  $\beta$  chain.

139. (New) The MHC Class II fusion protein of claim 131 wherein the MHC Class II  $\beta$  chain extracellular domain comprises amino acid residues 5-205 of a MHC Class II  $\beta$  chain.

140. (New) The MHC Class II fusion protein of claim 131 wherein the MHC Class II  $\beta$  chain is an HLA-DR2 allele.

141. (New) The MHC Class II fusion protein of claim 131 wherein the MHC Class II  $\beta$  chain is encoded by an allele selected from the group consisting of DRB1\*01, DRB1\*15, DRB1\*16, and DRB5\*01.

142. (New) The MHC Class II fusion protein of claim 131 wherein at least one of the dimerization domains comprises a leucine zipper domain.

143. (New) The MHC Class II fusion protein of claim 142 wherein the leucine zipper domain comprises at least four leucine heptads.

144. (New) The MHC Class II fusion protein of claim 143 wherein the leucine zipper domain is selected from the group consisting of a Fos and a Jun leucine zipper domain.

145. (New) The MHC Class II fusion protein of claim 131 wherein the Fc domain is an IgG Fc domain.

146. (New) The MHC Class II fusion protein of claim 131 wherein the Fc domain includes the hinge region.

147. (New) The MHC Class II fusion protein of claim 131 further comprising a first flexible molecular linker covalently linking the MHC Class II  $\alpha$  chain to the first dimerization domain and a second flexible molecular linker covalently linking the MHC Class II  $\beta$  chain to the second dimerization domain